

# UTILITY OF PLATELET INDICES AS INDICATORS OF VASCULAR COMPLICATIONS IN DDIAbetes MELLITUS

## Abstract

**Background** : Platelet volume indices (PVI) such as mean platelet volume (MPV), platelet distribution width (PDW ) are the indicators of increased platelet activity and can be considered as potential markers for diabetic vascular complications.

**Purpose** : To study and compare Platelet count, MPV and PDW between a) diabetics and non diabetics b) diabetics under glycemic control and not under glycemic control c) diabetics with complications and without complications

**Materials and Method**: A case control study was conducted on 100 diabetic cases and 100 non diabetic controls .PVI was obtained using automated analyser. Diabetics were further subdivided into group A( diabetics with HbA1C  $\leq 6.5$ ), group B (diabetics with HbA1C  $> 6.5$ ), group C (diabetics with complications) and group D (diabetics without complications). Statistical analysis was done using SPSS 15, t-test and independent sample test.

**Results** : MPV was significantly increased in a) diabetics than non diabetic healthy controls ( $p < 0.001$ ) b) diabetics under glycemic control than diabetics not under glycemic control ( $p < 0.001$ ) c) diabetics with complications than without complications ( $p < 0.001$ ). PDW showed significant difference between a) diabetics and non diabetic healthy controls ( $p < 0.001$ ) b) diabetics under glycemic control and diabetics not under glycemic control ( $p < 0.001$ ) c) diabetics with complications and without complications ( $p < 0.001$ ). There was no significant difference of platelet count between a) diabetics and non diabetic controls, b) group A and group B, c) group C and group D

**Conclusion** : MPV and PDW were significantly increased in diabetic patients and can be used as a predictive markers of diabetic vascular complications.

**Keywords** : Diabetes, Platelet count ,MPV , PDW.